OFFICE OF SUSTAINABILITY AND ENVIRONMENTAL RESOURCES

OUR MISSION

The Office of Sustainability and Environmental Resources (OSER) offers practical solutions for protecting the environment, conserving energy, and living sustainably in Frederick County, Maryland.

ROLES OF THE OFFICE

OSER's key focus areas revolve around sustainability and watershed management. In the area of sustainability, OSER coordinates programs related to energy-efficient home improvements and residential energy efficiency best practices through the Green Homes Challenge. The Office also supports the Frederick County Sustainability Commission and manages grants for the purchase of the County's electric buses.

Responsibilities towards watershed management include, controlling urban runoff, and restoring Frederick County's watersheds through the National Pollutant Discharge Elimination Systems (NPDES) Municipal Separate Storm Sewer System (MS4) permit to minimize the impacts of stormwater pollution in our local waterways. OSER also provides guidance and oversight to eleven county-owned facilities with their industrial discharge permits. Through these efforts, OSER also assists in meeting the State's Chesapeake Bay Nutrient and Sediment Reduction requirements.

OSER also coordinates the Monocacy and Catoctin Watershed Alliance, a mutual, collaborative, non-advocacy effort among individuals and organizations desiring to work together to improve the health of the Monocacy and Catoctin watersheds.

As part of the County Executive's Office, OSER's roles and programs help to carry out the County Executive's strategic priorities in the areas of Community Needs and Growth to sustain safe communities, invest in healthy living opportunities and to maintain physical infrastructure with economically efficient investments.

LIVABLE FREDERICK

OSER's roles and programs coincide with the Livable Frederick Master Plan efforts in the county related to the Water, Land, and Climate and Energy categories. The Livable Frederick Master Plan, adopted in 2019, offers new approaches to long-range planning in Frederick County.

Water

Goals in this category seek to ensure the protection of water sources for human consumption, enhancement of water quality for aquatic and human life, and viability of water supplies for future population growth.

GOAL: Quality – Improve and protect water quality for human and environmental health by eliminating impairing levels of pollution to local waterways and by adequately funding and implementing water quality restoration and protection efforts.

- *Initiative:* **Best Practices.** Implement best management practices (BMPs) in all land use sectors and activities to improve water quality, in-stream, and riparian (stream-side) habitat.

Land

Goals in this category concern preserving and protecting our land systems from degradation due to natural forces and human interventions and increasing their resilience.

GOAL: Natural Resources and Green Infrastructure – The natural environment and its habitat provision and ecosystem services are critical to our quality of life, and so they should be the primary consideration in all land planning and governmental decision-making processes.

- *Initiative:* **Tree Canopy and Forest Coverage.** Increase tree canopy coverage and riparian forest acreage in Frederick County.
- *Initiative:* **Outreach for Ecology.** Increase the public's knowledge about ecology and environmental sustainability.

GOAL: Built Environment - Increase energy efficiency and environmental standards in existing and new built infrastructure.

- *Initiative:* **Energy Audit and Retrofit.** Establish large-scale energy audit and retrofit programs to reduce energy consumption and increase economic efficiencies.

Climate and Energy

Goals in this category concern affordable and scalable solutions to address resiliency from extreme weather events and changing weather patterns.

(Above) Electric Bus.

GOAL: Climate Resiliency – Plan and prepare for the impacts to public infrastructure, human health, private property, and the environment from increasing flooding, fires, droughts, crop and tree damage, temperature extremes, and intense storm events.

- *Initiative:* **Stormwater Impacts.** Plan for and anticipate the impact of increased stormwater flows.

GOAL: Clean Energy – Lead in the use of clean energy sources, such as solar, wind, geothermal, biofuels, and hydropower.

- *Initiative:* **Carbon Footprint Zero.** Strive to be greenhouse gas neutral in energy production and consumption.

STORM WATER

The programs and efforts in Livable Frederick related to stormwater are also reinforced through the Office. The Office is responsible for implementing this through the NPDES MS4 permit requirements.

Water Quality Monitoring

Water quality monitoring activities are conducted throughout the year to fulfill permit requirements. These monitoring projects evaluate and analyze the real-time chemical, physical, and biological health of a stream.

Frederick County Stream Survey (FCSS)

Monitoring sites are chosen at random, sampled, and scored based on the amount of forest along the banks, aquatic bug populations, stream bank erosion, and levels of pollutants in the water. The stream scores within each watershed are averaged across four years to give an overall watershed health score throughout the county.

Capital Improvement Projects

In order to improve stream health, combat stormwater pollution, and mitigate local flooding, the County installs and implements stormwater best management practices (BMPs). BMPs can slow or absorb stormwater runoff that is carried over impervious surfaces like rooftops, driveways, and sidewalks that convey any exposed pollutants into our local waterways. Some common structural BMP projects include stormwater ponds and stream restorations.

Illicit Discharge Detection and Elimination Program

The Illicit Discharge Detection and Elimination (IDDE) Program is a 3-part program which consists of outfall screenings, hotspot surveys, and citizen case reports to manage illegal pollution and stormwater runoff. Illicit discharges involve materials like used oil, trash juice from dumpsters, chemicals, or other hazardous materials being discharged, intentionally or unintentionally, into the stormwater sewer system. To report a spill, visit our website or call 301-600-2325.

LAND

The programs and efforts related to the Land category support efforts to meet the County's NPDES MS4 permit requirements.

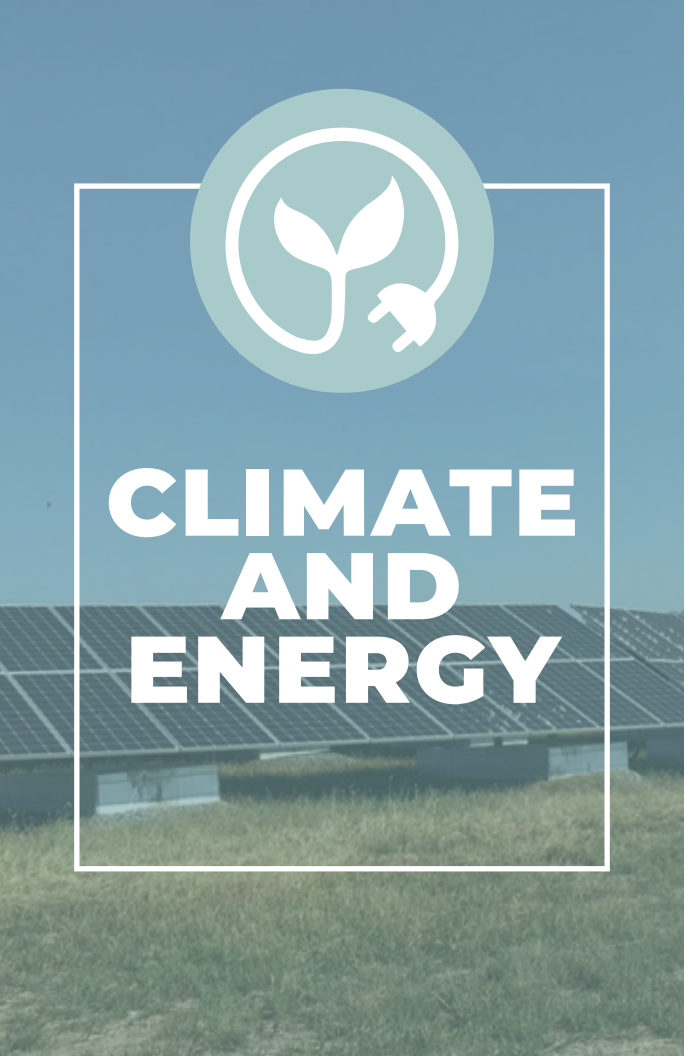
Creek ReLeaf Reforestation Program

The award-winning Creek ReLeaf program is a multi-year reforestation program designed to increase the total amount of forested area within Frederick County, including privately owned lands and public properties. Forested lands provide stormwater control, reduce temperature impacts on County streams, and increase wildlife habitat. The program provides private landowners with native trees and shrubs planted on their property, 5 years of maintenance to establish the forest stand, and payment for a permanent reforestation easement that will be placed on the planted parcel. After the initial 5 years, the property maintenance reverts to the land owner with County inspections every three years.

In 2019, the Creek ReLeaf Program won a "Best Urban BMP in the Bay" award from the Chesapeake Stormwater Network and earned County Executive Gardner a "Chesapeake Forest Champion Award" from "Forests for the Bay", a collaboration between Alliance for the Chesapeake Bay, the US Forest Service and the Chesapeake Bay Program.

GREEN LEADER BRIGADE

A special initiative comprised of a "go-to" group of volunteers, ages 16 and above, who help with yearly stream cleanups, tree plantings, and other environmental stewardship projects.



CLIMATE AND ENERGY

Climate and Energy

Frederick County Government (FCG) became a Maryland Smart Energy Community in 2013 and has successfully competed for grants since then to help fund electric vehicles and energy efficient lighting projects. A solar array at the Reichs Ford Road Landfill powers some County facilities and all of FCG's electric buses. Solar arrays also supply some of the power for the Ballenger-McKinney Wastewater Treatment Plant and hot water for the Adult Detention Center. The Metropolitan Regional Council of Governments (MWCOG), partnering with OSER, found Frederick County community-wide greenhouse gas (GHG) emissions decreased by 34% between 2005 and 2015.

Frederick County Sustainability Commission

The Frederick County Sustainability Commission, made up of 13 community members and staffed by OSER, meets monthly to discuss the natural environment's critical relevance in making community decisions to sustain for all time, a healthy, abundant, affordable, and inspiring place to live and work.

Leadership in Energy and Environmental Design (LEED) Certification

LEED for Communities measures outcomes in key areas, including energy, water, waste, transportation, health, education, safety, and prosperity. Frederick County earned its **LEED (Leadership in Energy and Environmental Design) Silver Community Certification** through the Council's LEED for Communities program, for implementing practical and measurable strategies and solutions aimed at improving sustainability and a high quality of life. Frederick County is one of fewer than 10 counties in the nation to earn this designation to date. LEED® is the preeminent program for the design, construction, maintenance and operations of high-performance green buildings.

Green Homes Challenge

The award-winning Green Homes Challenge is an online certification and citizen outreach tool that guides, rewards and recognizes Frederick County households for saving energy, adopting green lifestyle practices, and using renewable energy. The goals and actions of the Challenge relate not only to the Climate and Energy category within Livable Frederick but also to the Land and Water categories. The Green Homes Challenge is associated with grant-funded initiatives such as the Power Saver Retrofits Program, the Neighborhood Green Program and Solarize Frederick County. There are three corresponding Challenges that make up the overall Green Homes Challenge:

Challenge 1:
BE A POWER SAVER

Save Our Energy,
Bank Your Money!

Helps residents reduce energy consumption and utility bills

Challenge 2:
BE A GREEN LEADER

Green Your Lifestyle,
Protect Our Resources!

Helps residents adopt environmentally-friendly practices

Challenge 3:
BE A RENEWABLE STAR

Renew Your Energy,
Clear Our Air!

Helps residents use renewable energy

To get started, sign up for a free account at www.FrederickGreenChallenge.org.

Then find actions that are right for your household based on cost, potential savings, and ease of completion.

Tips for Green Leaders

More information on these topics can be found at **SustainableFrederickCounty.org**.

Composting: Do the Rot Thing

Composting food and yard scraps is a great way to make inexpensive, high quality soil amendment for lawn and garden to grow stronger, more resistant plants that require less insecticide. Learn how to reduce your garbage stream volume, and to create healthy soils that protect our waterways.

Natural Household Cleaners

Conventional cleaners contain some of the most dangerous chemicals found in the home, but these chemicals are not always listed on the labels. Discover some safer, less expensive nontoxic alternatives that are as effective at cleaning your home.

Lay Down the Lawn: Protecting Water Quality

The choices we make in maintaining our lawns can make a real difference in the health of our streams, rivers, and the Chesapeake Bay. Learn how reduced fertilizer and pesticide use, and reduced mowing and watering frequencies can protect our waterways.

Rooting for Native Plants

Native plants allow landscapes to coexist with nature creating more sustainable landscapes, cleaner air and water, soil stabilization and habitat for wildlife. Learn more about the benefits of native plant gardening.

"Raining" in the Power of Rain Barrels

Using a rain barrel to capture rainwater is a good way to reduce stormwater runoff on your property and to help reduce pollutants from entering our waterways. Rainwater can be stored and used to supply plants between rainfall events, or channeled into rain gardens where it can seep into ground.

Rain Gardens

Rain Gardens are shallow saucer shaped depressions that temporarily hold and treat runoff, and recharge groundwater. Discover how a rain garden can be your personal contribution to cleaner water, healthier wildlife, and an improved environment for you and your community.

Controlling Invasive Species

Invasive plants can displace native species, eliminate food and habitat for wildlife, alter natural fire regimes and nutrient cycling in soils, and inhibit native plant regeneration. Learn more about the different types of invasive plants found in Maryland and how you can help to stop them from spreading.

Prevent Illicit Discharges to Keep Our Waterways Clean

An Illicit Discharge is defined as any discharge into a storm sewer system that is not composed of entirely stormwater. Some common examples of illicit discharges include: car washwater, improper oil disposal, and a connection between a municipal sewer and storm sewer system. Find out how to prevent illicit discharges, and how to report instances of illegal dumping or discharges into the storm sewer system.

Go Out on a Limb — Plant Trees!

Trees stabilize soil and soak up carbon dioxide which helps to clean up the air we breathe, guard against flooding, and provide food for birds, insects, and mammals. Learn how to pick the right tree for your property and the proper techniques for planting and maintenance.

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Visit SustainableFrederickCounty.org to sign up for our quarterly newsletter to get all the latest OSER news!

SUSTAINABLEFREDERICKCOUNTY.ORG

FREDERICK COUNTY GOVERNMENT

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Sustainability and Environmental Resources

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